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09/827,447	04/06/2001	Ernesto C. Barreyro	7190	6188

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Zenith Electronics Corporation
2000 Millbrook Drive
Lincolnshire, IL 60069

EXAMINER

TRAN, TRANG U

ART UNIT	PAPER NUMBER
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2614

9

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,447

Applicant(s)

BARREYRO ET AL.

Examiner

Trang U. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 09, 2004 has been entered.

Response to Arguments

2. Applicant's arguments filed March 08, 2004 have been fully considered but they are not persuasive.

In re pages 6-7, applicants argue that regarding to the independent claim 9, the Takashimizu patent discloses PID replacement. Because the PID is a packet identifier and is not a channel identifier, the Takashimizu patent does not disclose replacing a data component identifying a first selected channel with a data component identifying a second selected channel. Therefore, the Takashimizu patent does not anticipate independent claim 9.

In response, the examiner respectfully disagrees. Takashimizu discloses in col. 5, lines 18-65, that

“General speaking, in the digital broadcasting system, a single frequency at which plurality of programs are multiplexed is referred to as a physical channel. At the next step 202, for instance, a PAT (Program Association Table) is received, which corresponds to one of packets for constituting the multiplexed signal (will be referred to as a “TS (Transport Stream)” hereinafter) show in Fig. 2 under reception. **It should also be note that “PAT” is equal to one of the tables contained in PSI**

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(Program Specific Information) defined by the international standard rule MPEG2. Also, PID indicate of being PAT is defined to have a specific value”.

Additionally, Takashimizu discloses in col. 11, lines 19-42, that:

“In addition to the respective packets such as the above-described PAT, PMT, video data and audio data, both a PCR (Program Clock Reference) equal to data indicate of time information required in the MPEG2 decoder 507, and information related to a desired program (namely, program presently observe by observer) among the program related information are extracted, and thereafter are recorded on the recording/reproducing apparatus 512 via the packet replacement circuit 510 and the interface circuit 511...**to achieve the contemplation, after the above-described, PAT replacement is carried out in the packet replacing circuit 510, the packet-replaced signal is recorded or display**”.

From the above passages, it is clear that the Takashimizu does indeed disclose the replacing a data component identifying a first selected channel with a data component identifying a second selected channel is met by the PAT replacement circuit 510 because **“PAT” is equal to one of the tables contained in PSI (Program Specific Information) defined by the international standard rule MPEG2** which is the data component identifying the selected channel as recited in claim 9.

In re page 7, applicants argue that moreover, independent claim 9 recites that the data component identifying the second selected channel is not contained in the received digital television signal. By contrast, the replacement PID as disclosed in the Takashimizu patent is contained in the received signal.

In response, the examiner respectfully disagrees. Takashimizu disclose in col. 12, lines 8-46, that

“A PID of a packet to be replaced (replaced PID) is previously inputted by the system controller 513, and then is stored into the PID

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register 56, and data after being replaced (replaced data) is entered via the system controller 513 to be stored into the storage circuit 42. It should also be noted that a plurality of packet data may be stored into the storage circuit 42".

From the above passage, it is clear that Takashimizu does indeed disclose the claimed the data component identifying the second selected channel is not contained in the received digital television signal as recited in claim 9.

In re page 7, applicants argue that because the Takashimizu patent does not anticipate independent claim 9, the Takashimizu patent likewise does not anticipate dependent claims 10-13, 20 and 21.

In response, the Takashimizu patent does anticipate independent claim 9.

In re pages 7-8, applicants argue that regarding to dependent claims 11 and 13, the Takashimizu patent merely discloses that the CRC is contained in the received signal and that the CRC may calculated based on the replaced data. The Takashimizu patent does not disclose that the CRC contained in the received signal is replaced in the signal by the newly calculated CRC. Indeed, there would be a little purpose in replacing the CRC contained in the received signal by the newly calculated CRC in the system disclosed in the Takashimizu patent. Thus, the Takashimizu patent does not even suggest replacing the CRC contained in the received signal by the newly calculated CRC.

In response, the examiner respectfully disagrees. Takashimizu discloses in col. 14, line 64 to col. 15, line 2, that **"furthermore, the error checking CRC code is added to the data 21 of the actual packet. The CRC code of the replaced data may be calculated by the system controller 513.** Alternatively,

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a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC coded may be generated, or added". From the above passage, it is clear that Takashimizu does indeed disclose the claimed suggest replacing the CRC contained in the received signal by the newly calculated CRC because the PAT replacement which replaces the entire packet including the CRC code is added to the data 21 of the actual packet as recited in the dependent claims 11 and 13.

In re pages 8-9, applicants argue that regarding to the independent claim 1, the Takashimizu patent discloses PID replacement. Because the PID is a packet identifier and is not a channel identifier, the Takashimizu patent does not disclose replacing a data component identifying a first selected channel with a data component identifying a second selected channel. Moreover, the Citta patent does not disclose data replacement at all. Therefore, the combination of the Takashimizu patent and Citta patent cannot teach or suggest the invention of independent claim 1.

In response, the examiner respectfully disagrees. As discussed in claim 9 above, Takashimizu discloses in col. 5, lines 18-65, that

"General speaking, in the digital broadcasting system, a single frequency at which plurality of programs are multiplexed is referred to as a physical channel. At the next step 202, for instance, a PAT (Program Association Table) is received, which corresponds to one of packets for constituting the multiplexed signal (will be referred to as a "TS (Transport Stream)" hereinafter) show in Fig. 2 under reception. **It should also be note that "PAT" is equal to one of the tables contained in PSI (Program Specific Information) defined by the international standard rule MPEG2.** Also, PID indicate of being PAT is defined to have a specific value".

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Additionally, Takashimizu discloses in col. 11, lines 19-42, that:

“In addition to the respective packets such as the above-described PAT, PMT, video data and audio data, both a PCR (Program Clock Reference) equal to data indicate of time information required in the MPEG2 decoder 507, and information related to a desired program (namely, program presently observe by observer) among the program related information are extracted, and thereafter are recorded on the recording/reproducing apparatus 512 via the packet replacement circuit 510 and the interface circuit 511...**to achieve the contemplation, after the above-described, PAT replacement is carried out in the packet replacing circuit 510, the packet-replaced signal is recorded or display**”.

From the above passages, it is clear that the Takashimizu does indeed disclose the replacing a data component identifying a first selected channel with a data component identifying a second selected channel is met by the PAT replacement circuit 510 because **“PAT” is equal to one of the tables contained in PSI (Program Specific Information) defined by the international standard rule MPEG2** which is the data component identifying the selected channel as recited in claim 1.

In re pages 9-10, applicants argue that moreover, independent claim 1 recites that the data component identifying the second selected channel is not contained in the received RF digital television signal. By contrast, the replacement PID as disclosed in the Takashimizu patent is contained in the received signal.

In response, the examiner respectfully disagrees. As discussed in claim 9 above, Takashimizu disclose in col. 12, lines 8-46, that

“A PID of a packet to be replaced (replaced PID) is previously inputted by the system controller 513, and then is stored into the PID register 56, and data after being replaced (replaced data) is entered via the system controller 513 to be stored into the storage circuit 42. It should

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also be noted that a plurality of packet data may be stored into the storage circuit 42".

From the above passage, it is clear that Takashimizu does indeed disclose the claimed the data component identifying the second selected channel is not contained in the received digital television signal as recited in claim 1.

In re page 7, applicants argue that because independent claim 1 is not unpatentable over the Takashimizu patent in view of Citta patent, dependent claims 2-4, 18 and 19 likewise are not unpatentable over the Takashimizu patent in view of Citta patent.

In response, the Takashimizu patent and Citta patent indeed disclose all the limitations of independent claim 1.

In re pages 10-11, applicants argue that regarding to dependent claims 2 and 4, the Takashimizu patent merely discloses that the CRC is contained in the received signal and that the CRC may calculated based on the replaced data. The Takashimizu patent does not disclose that the CRC contained in the received signal is replaced in the signal by the newly calculated CRC. Indeed, there would be a little purpose in replacing the CRC contained in the received signal by the newly calculated CRC in the system disclosed in the Takashimizu patent. Thus, the Takashimizu patent does not even suggest replacing the CRC contained in the received signal by the newly calculated CRC.

In response, the examiner respectfully disagrees. Takashimizu discloses in col. 14, line 64 to col. 15, line 2, that **"furthermore, the error checking CRC code is added to the data 21 of the actual packet. The CRC code of the**

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replaced data may be calculated by the system controller 513. Alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC coded may be generated, or added". From the above passage, it is clear that Takashimizu does indeed disclose the claimed suggest replacing the CRC contained in the received signal by the newly calculated CRC because the PAT replacement which replaces the entire packet including the CRC code is added to the data 21 of the actual packet as recited in the dependent claims 2 and 4.

In re page 11, applicants argue that because independent claim 1 is not unpatentable over the Takashimizu patent in view of Citta patent and/or in view of the Reitmeier patent, dependent claims 5-8 and 14-17 likewise are not unpatentable over the Takashimizu patent in view of Citta patent and/or in view of the Reitmeier patent.

In response, the Takashimizu patent and Citta patent indeed disclose all the limitations of independent claims 1 and 9.

In re page 13, applicants argue that in addition, dependent claims 6, 7, 15 and 17, the Takashimizu patent merely discloses that the CRC is contained in the received signal and that the CRC may calculated based on the replaced data. The Takashimizu patent does not disclose that the CRC contained in the received signal is replaced in the signal by the newly calculated CRC. Indeed, there would be a little purpose in replacing the CRC contained in the received signal by the newly calculated CRC in the system disclosed in the Takashimizu

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patent Thus, the Takashimizu patent does not even suggest replacing the CRC contained in the received signal by the newly calculated CRC.

In response, the examiner respectfully disagrees. Takashimizu discloses in col. 14, line 64 to col. 15, line 2, that **"furthermore, the error checking CRC code is added to the data 21 of the actual packet. The CRC code of the replaced data may be calculated by the system controller 513.** Alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC coded may be generated, or added". From the above passage, it is clear that Takashimizu does indeed disclose the claimed suggest replacing the CRC contained in the received signal by the newly calculated CRC because the PAT replacement which replaces the entire packet including the CRC code is added to the data 21 of the actual packet as recited in the dependent claims 6, 7, 15 and 17.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 9-13 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Takashimizu et al. (US Patent No. 6,185,228 B1).

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In considering claim 9, Takashimizu et al discloses all the claimed subject matter, note 1) the claimed finding the data component identifying the first selected channel in the PSIP data table received in the digital television signal is met by the tuner 502, the QPSK demodulator 503, the FEC 504 and the second packet separating circuit 509 (Fig. 15, col. 10, line 15 to col. 11, line 35), and 2) the claimed modifying the digital television signal by replacing the data component identifying the first selected channel with the data component identifying the second selected channel, wherein the data component identifying the second selected channel is not contained in the received digital television signal is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

In considering claim 10, the claimed wherein the finding of the data component and the replacement of the data component identifying the first selected channel with the data component identifying the second selected channel are performed at baseband is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

In considering claim 11, the claimed re-computing a cyclic redundancy code based upon the data component identifying the second selected channel, and, replacing a cyclic redundancy code data component in a PSIP packet with the re-computed cyclic redundancy code is met by the error checking CRC code

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is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25).

In considering claim 12, the claimed further comprising modifying the digital television signal by replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

Claim 13 is rejected for the same reason as discussed in claim 11.

In considering claim 20, the claimed wherein the first selected channel comprises a first physical channel, and wherein the second selected channel comprises a second physical channel is met by the desirable logical channel and the packet replacement channel, generally speaking, in a digital broadcasting system, a single frequency at which a plurality of programs are multiplexed is referred to as a physical channel (Fig. 3, col. 5, lines 18-65).

Claim 21 is rejected for the same reason as discussed in claim 12.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Citta et al (US Patent No. 6,559,898 B1).

In considering claim 1, Takashimizu et al discloses all the claimed subject matter, note 1) the claimed a tuner tuned to receive an RF digital television signal on a first selected television channel is met by the tuner 502 (Fig. 15, col. 10, lines 15-39), 2) the claimed a demodulator arranged to provide a baseband television signal from the RF digital television signal to which the tuner is tuned, wherein the baseband television signal includes a data component identifying the first selected channel is met by the QPSK demodulator 503 (Fig. 15, col. 10, lines 15-43), and 3) the claimed a data replacer arranged to modify the baseband television signal by replacing the data component identifying the first selected channel with a data component identifying a second selected channel different from the first selected channel, wherein the data component identifying the second selected channel is not contained in the RF digital television signal is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25). However, Takashimizu et al explicitly does not disclose the claimed a modulator arranged to modulate the baseband television signal including the data component identifying the second selected channel for transmission as a digital television signal on the second selected channel.

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Citta et al teach that the encoded and modulated VSB signal is supplied over a cable network 23, which may comprise a single coaxial cable or a relatively complex home cable network, to an RF channel input of a tuner 26 of the VSB digital television receiver 24, the signal may also be amplified by a low power RF amplifier 25 (Fig. 1) and transmitted wirelessly to the VSB digital television receiver 24 in an assigned RF broadcast television channel (Fig. 1, col. 3, lines 34-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the modulator as taught by Citta et al into Takashimizu et al's system in order to provide a digital encoder-modulator for coupling a baseband digital signal to a VSB digital television receiver.

In considering claim 2, the claimed wherein the data replacer is also arranged to re-compute a cyclic redundancy code based upon the data component identifying the second selected channel and to replace a cyclic redundancy code data component in the baseband television signal with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

In considering claim 3, the claimed wherein the data replacer is also arranged to modify the baseband television signal by replacing a virtual channel

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data component in the baseband television signal with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 4 is rejected for the same reason as discussed in claim 2.

In considering claim 18, the claimed wherein the first selected channel comprises a first physical channel, and wherein the second selected channel comprises a second physical channel is met by the desirable logical channel and the packet replacement channel, generally speaking, in a digital broadcasting system, a single frequency at which a plurality of programs are multiplexed is referred to as a physical channel (Fig. 3, col. 5, lines 18-65) of Takashimizu et al.

Claim 19 is rejected for the same reason as discussed in claim 3.

7. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Citta et al (US Patent No. 6,559,898 B1) and further in view of Reitmeier (US Patent No. 6,115,080).

In considering claim 5, the combination of Takashimizu et al disclose all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the data replacer is also arranged to modify the baseband television signal by replacing an NTSC channel data component in the baseband television signal with a replacement NTSC channel data component. Reitmeier teaches that the channel selection routine 500 is used to rapidly

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identify, based on the input of a user, a new channel to be selected, that is, in response to a digit indicative of the selection of a particular class of channel (e.g., NTSC, presently tuned ATSC, untuned ATSC and the like), tuning, demodulation and/or demultiplexing operations associated with that class of channel are invoked in a manner designed to speed up the process of selecting a particular channel within indicated class of channels (Fig. 5, col. 12, line 14 to col. 13, line 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the NTSC channel data as taught by Reitmeier into the combination of Takashimizu et al and Citta et al's system in order to select for further processing a desired television channel suitable for use in a television receiver capable of receiving both analog and digitally encoded television signals.

In considering claim 6, the claimed wherein the data replacer is also arranged to re-compute a cyclic redundancy code based upon the data component identifying the second selected channel and to replace a cyclic redundancy code data component in the baseband television signal with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

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In considering claim 7, the claimed wherein the data replacer is further arranged to modify the baseband television signal by replacing a virtual channel data component in the baseband television signal with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 8 is rejected for the same reason as discussed in claim 6.

8. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Reitmeier (US Patent No. 6,115,080).

In considering claim 14, Takashimizu et al disclose all the limitations of the instant invention as discussed in claim 9 above, except for providing the claimed further comprising modifying the digital television signal by replacing an NTSC channel data component in the PSIP data table with a replacement NTSC channel data component. Reitmeier teaches that the channel selection routine 500 is used to rapidly identify, based on the input of a user, a new channel to be selected, that is, in response to a digit indicative of the selection of a particular class of channel (e.g., NTSC, presently tuned ATSC, untuned ATSC and the like), tuning, demodulation and/or demultiplexing operations associated with that class of channel are invoked in a manner designed to speed up the process of selecting a particular channel within indicated class of channels (Fig. 5, col. 12, line 14 to col. 13, line 67). Therefore, it would have been obvious to one of

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ordinary skill in the art at the time of the invention to incorporate the NTSC channel data as taught by Reitmeier into Takashimizu et al's system in order to select for further processing a desired television channel suitable for use in a television receiver capable of receiving both analog and digitally encoded television signals.

In considering claim 15, the claimed re-computing a cyclic redundancy code based upon the data component identifying the second selected channel, and, replacing a cyclic redundancy code data component in a PSIP packet with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

In considering claim 16, the claimed further comprising modifying the digital television signal by replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 17 is rejected for the same reason as discussed in claim 15.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is

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(703) 305-0090. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TRANG TRAN
PATENT EXAMINER

TT
June 27, 2004